

REMARKS/ARGUMENTS

New claims 30-39 are supported throughout the specification, which describes the invention stucco silica layer. Note also, e.g., Examples 1, 4 and 5 which prepare a stucco layer by heating at 800°C. As evidenced by the chart showing the transformation of silica submitted with the amendment of August 27, 2003, heating at this temperature produces beta quartz. No new matter has been entered.

New Claims 38 and 39 describe the invention mold "in use," that is, containing the silicon ingot. Support for these claims is found in, e.g., Example 5 wherein molten silicon is poured into the mold and cooled to produce a polycrystalline silicon ingot. Accordingly, no new matter has been entered.

The present continuation application is directed to molds coated with a stucco silica layer. This stucco layer is different and distinct from the mold layers of the applied prior art, as it is made of beta quartz, and this distinction has been more particularly pointed out by the above amendment to the claims which recites the presence of the beta quartz stucco layer. As will become more clear below, the presently claimed stucco layer has a distinct molecular architecture as compared with the prior art.

Previously Applicant attached a summary describing silica stability and, in particular, the transformation of silica. This attachment describes the various forms of silica, and the temperatures at which the forms change. As noted in the attachment, the different forms of silica, which occur at different heating temperatures, have different crystal systems, different specific gravities, etc.

On the other hand, Daxer uses a mold with a liner of quartz sand that is sintered at between 1300° and 1600°C. As noted in the previously submitted stability chart, this high temperature provides silica which is different and distinct as compared with the presently claimed beta quartz stucco layer.

The situation with EP '543 is essentially the same. That is, the layer described in the reference that is pertinent here is described as being prepared by "melting" (Abstract) and being "molten" (page 5, bottom). This significant heating provides a transparent synthetic silica glass, which, as shown in the attached sheet regarding the transformation of silica, is different and distinct from beta quartz silica prepared for example by heating at 800°C.

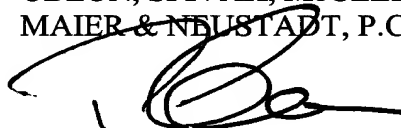
Finally, Snyder relates to a metal mold, not a mold for producing a silicon ingot. See, for example, column 1, line 13; column 2, lines 59-60; and column 3 line 32. Moreover, the coating of silica mentioned at column 6, etc., is silica glass which clearly is different from the presently claimed beta quartz stucco layer. In addition, Snyder relates to a mold made of a metal body, not one having a graphite or quartz mold body, and there is nothing in the reference to suggest that the coating layer provided in Snyder on a metal base could or should be used with any other type of base. These several distinctions clearly show that Snyder is not suggestive of the present invention and to the extent that the rejection relies on official notice of facts essential to a *prima facie* case those facts are hereby seasonably challenged.

Accordingly, and in view of the discussion held at the interview and the above amendment and remarks, Applicants submit that the present application is in condition for allowance.

In compliance with the Examiner's comment regarding Figure 9, Applicants have amended the Figure to indicate therein the description of "conventional art." Applicants have not labeled this figure "Prior Art" because the specification does not discuss whether the conventional quartz mold described was available under a section of the patent laws that would qualify this art as legally available "Prior Art" in the United States.

Respectfully submitted,

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